

**Commonwealth of Kentucky  
Division for Air Quality**

**PERMT RENEWAL SUMMARY FORM**

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GENERAL INFORMATION:

Name: MeadWestvaco Virginia Corporation – Wickliffe Carbon Plant.  
Address: 2025 Beech Grove Road, Wickliffe, KY 42087  
Last revision application received: September 21, 2005  
SIC/Source description: 2819  
EIS #: 21-007-00012  
AI #: 59  
Permit number: V-06-009

APPLICATION TYPE/PERMIT ACTIVITY:

<input type="checkbox"/> Initial issuance	<input type="checkbox"/> General permit
<input checked="" type="checkbox"/> Permit modification	<input type="checkbox"/> Conditional major
___ Administrative	<input checked="" type="checkbox"/> Title V
___ Minor	<input type="checkbox"/> Synthetic minor
X_ Significant	<input type="checkbox"/> Operating
<input checked="" type="checkbox"/> Permit renewal	<input type="checkbox"/> Construction/operating

COMPLIANCE SUMMARY:

<input type="checkbox"/> Source is out of compliance	<input type="checkbox"/> Compliance schedule included
<input type="checkbox"/> Compliance certification signed	

APPLICABLE REQUIREMENTS LIST

<input type="checkbox"/> NSR	<input type="checkbox"/> NSPS	<input checked="" type="checkbox"/> SIP
<input checked="" type="checkbox"/> PSD	<input type="checkbox"/> NESHAPS	<input type="checkbox"/> Other
<input type="checkbox"/> Netted out of PSD/NSR	<input type="checkbox"/> Not major modification per 401 KAR 51:017, 1(23)(b) or 51:052,1(14)(b)	

MISCELLANEOUS:

☐ Acid rain source  
☐ Source subject to 112(r)  
☐ Source applied for federally enforceable emissions cap  
☐ Source provided terms for alternative operating scenarios  
☐ Source subject to a MACT standard  
☐ Source requested case-by-case 112(g) or (j) determination  
☐ Application proposes new control technology  
☒ Certified by responsible official  
☒ Diagrams or drawings included  
☒ Confidential business information (CBI) submitted in application  
☐ Pollution Prevention Measures  
☐ Area is non-attainment (list pollutants):

**RENEWAL AND REVISIONS:**

Initial Title V operating permit (Number V-99-009 Revision 1) was issued on March 10, 1999 to the Westvaco Corporation, Wickliffe, KY. The permit expired on March 10, 2004. A renewal application was received by the Division on September 11, 2003. A significant revision application to the permit was received by the Division on September 21, 2005 along with a revised renewal application. The draft Title V permit (Number V-06-009) has incorporated all the revisions, as per 401 KAR 52:020.

MeadWestvaco Virginia Corporation, the original company, divested a large portion of its paper business through sale. One of the paper mill involved in the sale was the Wickliffe fine paper mill adjacent to the carbon plant. The original renewal application submitted on September 11, 2003, included both the paper mill and carbon plant. Upon the close of the divestiture, the two facilities are no longer considered under common control and are considered stand-alone operation. Based on the revised estimate of potential Hazardous Air Pollutant (HAP) emissions, the facility qualifies as a minor source of HAP emissions and has applied for a federally enforceable limit of HAP emissions. The revised application for Title V permit renewal includes other modifications necessitated for the stand-alone operation of the carbon plant.

Change Summary:

1. Provision for Temporary Boiler. Wickliffe Carbon Plant receives steam from the adjacent New Page Mill. Prior to the divestiture of the mill, steam supply was consistent. Unplanned steam outages are now a significant risk to the operation of the carbon plant. The revised permit renewal application includes the temporary/leased package boiler to operate no more than 180 days per calendar year for uninterrupted carbon production which is very critical for evolving market demands. Temporary/leased boiler shall use natural gas as fuel.
2. Federally Enforceable HAP limits. Due the stand-alone operation of the Mead Westvaco Carbon Plant, the facility is now a minor source of hazardous air pollutants. As such federally enforceable limits must be incorporated in the Title V permit to achieve minor source status.
3. Insignificant Activities. A 550-gallon gasoline tank has been installed to use for plant vehicle refueling. Emissions from the tank have been considered as an insignificant activity.

Pursuant to 401 KAR 52:020 Section 4, revision to the original Title V permit was made with the renewal Title V permit V-06-009. There is no significant increase in potential emissions.

**EMISSIONS SUMMARY:**

Pollutant	2004 Actual (tpy)	Potential (tpy)
PM	19.4	127.9
PM10	19.4	127.9
SO <sub>2</sub>	0.06	0.708
NO <sub>x</sub>	87.7	244.2
CO	164.6	484.9
VOC	12.5	560.85
Total HAP>25TPY	none	none
Individual HAP>10 TPY	none	none

**Source Description:**

MeadWestvaco Carbon Plant produces activated carbon products principally used for onboard vapor recovery of automobile refueling emissions. Major facility components are:

1. Saw Dust Storage and Handling.
2. Acid Mixing, Activating Kiln and Acid Recovery.
3. Drying, Grinding and Finishing.
4. Post Activation process- Pre-heaters and Reactors (Catalyst Plant)

Within and between these processes are various storage and material handling system.

Saw dust is used as the activated carbon precursor and is stored in a sawdust pile contiguous to the plant. The sawdust is screened and then transferred to a sawdust feed tank where sawdust is mixed with phosphoric acid and conveyed into the activation kiln. The sawdust-acid mixture flows through the kiln and undergoes oxidation. Natural gas is combusted to provide heat in the kiln. The flue gas flows countercurrent to the carbon and goes to the after burner and scrubbing system to destroy organic vapor compounds and to reduce the particulate matters respectively. The product exits the activation kiln into the acid recovery and carbon wash area. The recovered acid is recycled. The carbon product is filtered and then dried in a rotary kiln. The dried carbon then screened and stored for packaging and shipping. A part of the carbon product is sent to the preheaters and reactors for further processing to produce specialty product. The special product manufacturing is a trade secret and the process is not disclosed.